

EXHIBIT B

**REDACTED VERSION OF DOCUMENT
SOUGHT TO BE SEALED**

Disclosure of Expert Rebuttal Testimony for Dr. Thomas W. Dyer.

Introduction

The United States hereby provides notice of its intent to elicit expert testimony at trial from Dr. Thomas W. Dyer under Rules 702, 703, and/or 705 of the Federal Rules of Evidence to rebut the testimony of Jinhua's purported expert, Dr. Woodward Yang. This disclosure is made pursuant to Rule 16(a)(1)(G) of the Federal Rules of Criminal Procedure.

Aside from basic points about DRAM technology, Dr. Dyer disagrees with most of Dr. Yang's opinions. The basis for those disagreements, however, is adequately summarized by referring to the evidence cited in the United States' opening disclosure for Dr. Dyer's testimony. What follows is a further summary of Dr. Dyer's testimony that is particularly relevant to rebutting Dr. Yang's opinions.

This disclosure references exhibits provided by Dr. Dyer that he intends to use at trial to illustrate his opinions and their bases. The United States reserves the right to create further exhibits to summarize, illustrate, or demonstrate Dr. Dyer's opinions, and will disclose such exhibits at the appropriate time.

The government hereby reserves the right to supplement this Notice as warranted.

Summary of Expert Rebuttal Opinions

I. Dr. Dyer Disagrees with Dr. Yang's Opinion That There is No Evidence that Project M Copied Micron's DRAM Process Information

Process Comparisons

As described in his July 2, 2021 disclosure, Dr. Dyer's opinion is that there is substantial evidence that the Project M team copied or otherwise used Micron's DRAM process information and trade secrets in developing the process for Project M. To illustrate the process comparisons described in his original disclosure, Dr. Dyer has continued build out spreadsheets that allow for a side-by-side comparison of the processes described in Micron's trade secrets (primarily for the 90 series and 110 series products) and the Project-M process, as it existed at various points in time: January 2016, February 2016, December 2016, and September 2018 (as the process was described in the Technology Transfer Package).

Exhibit A (USEXPERT_DYER-00000001) is a summary created by Dr. Dyer that describes his opinions as to the degree of similarity between the Project M process at various points in time and the Micron process information that Dr. Dyer found to be most similar to Project M's. Exhibit A consolidates process steps into modules of related steps. Exhibit B (USEXPERT_DYER-00000002) breaks out the individual steps in each module (on a variety of

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different Excel tabs – one for each module), to illustrate the step-by-step comparisons that served as the basis for the opinions summarized in Exhibit A. The cells in exhibits A are color coded based on the degree of similarity Dr. Dyer observed in the Project M process and Micron's processes (90 series or 110 series). Red indicates that Dr. Dyer observed a high degree of similarity between the Project M and referenced Micron process flows (the shade of red corresponds to 90 series or 110 series). Grey indicates that the process for a module appears to have been sourced from something other than the referenced Micron process flows.

By performing the detailed process comparisons and reviewing contemporaneous Project-M documents, Dr. Dyer was able to form opinions about the overall nature of the Project M development and how pieces of it evolved over time. Dr. Dyer will testify at trial that his comparisons illustrate that Project M started with an exact copy of a Rexchip process flow for a 25 nm process (Micron's 90 series). The Project M team worked to alter portions of that project flow where it made sense and in order to meet Project M's the technology roadmap, or to accommodate other issues that arise when transferring process technology from one fab to another. In some cases, Project M deviated from a portion of the Micron 90 series process only to implement the corresponding process from the Micron 110 series (1x nm) process. Dr. Dyer will testify that Project M implemented such changes especially for parts of the process flow that were impacted by Project M's decision to use a 3x2 cell array (as in the Micron 110 series) instead of a 2x3 cell array (as in the Micron 90 series).

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Dr. Dyer will testify that some of Project M's attempted alterations of Micron's process demonstrated a likely lack of experience in process integration. For example, Project M engineers would attempt to deviate from the copied Micron process in ways that, in Dr. Dyer's experience, were unmanageable with too many steps and/or process inefficiencies that are hard to control.

Dr. Dyer will use Exhibit A to illustrate his opinion that the Project M development started as an exact copy of the process described in Micron's 90 series documents. Project M engineers altered that process over time, often by incorporating process portions from Micron's

110 series process. The alteration of the Project M process from its inception as a copy of Micron's 90 series process to the eventual transfer to Jinhua, however, was a continuous and gradual one. At no time did Project M revert to a new process that was not originally based on Micron. The process that was eventually described in the 2018 Technology Transfer Package mirrored Micron's processes in most respects, and is an alteration of the processes described in Micron's trade secrets. Contrary to Dr. Yang's opinions, many of the process alterations that Dr. Dyer observed were consistent with transferring technology from one fab to another.

Recipe Comparisons

As described in his opening disclosure, Dr. Dyer's process comparisons included comparisons of process recipes described in Project M process flow documents and Micron process flow documents. Dr. Dyer will testify that the similarity between process recipe parameters—which often match across multiple parameters in a single recipe—suggests that Project M copied many recipes from Micron's documents. The probability of such detailed parameters matching is extraordinarily unlikely if the two developments were independent of one another.

Dr. Dyer will testify that some of the most striking instances of Project M recipe parameters matching Micron's are for ion-implant conditions. Attached as Exhibit C (USEXPERT_DYER-00000003) is a table describing documents that Dr. Dyer used to form his opinions about the similarity of ion-implant conditions between Project M and Micron. Based on his comparison, Dr. Dyer created Exhibit D (USEXPERT_DYER-00000007) to illustrate the similarities between ion-implant conditions for Project M and Micron. Dr. Dyer will testify that Project M's apparent use of Micron's ion-implant conditions—which are used primarily to form logic devices—contradicts Dr. Yang's opinion that a logic company like UMC would not derive value from using Micron's ion-implant conditions for DRAM. Dr. Dyer will testify that the match of such detailed parameters between Micron and Project M is indicative of copying as it would be exceedingly improbable for two independent developments to arrive at the same numbers.

Dr. Dyer reviewed documents that allowed him to form an opinion about how Project M altered the ion-implant conditions copied from Micron. Dr. Dyer observed that Project M made abrupt changes to the ion-implant conditions on or around February 2017 for the DRAM periphery that may have come from—or were similar to—conditions from UMC's 65 nm logic process. For other ion-implant conditions, including those for the DRAM array, Dr. Dyer observed a more gradual alteration that appeared to be based on process splits centered around the copied Micron implant conditions. Exhibit C cites the documents Dr. Dyer relied upon to form the opinions regarding Project M's alterations to ion-implant conditions. Dr. Dyer also created Exhibit E (USEXPERT_DYER-00000008) to show how Project M altered ion-implant

conditions and the source documents Dr. Dyer relied on to determine how Project M arrived at altered conditions.

Dr. Dyer created Exhibit F (USEXPERT_DYER-00000009) to illustrate a number of other notable process-recipe similarities between Project M and the Micron documents found in the possession of Project M employees. Dr. Dyer will testify that it is exceedingly improbable for two independent developments to arrive at such similar recipes.

II. Dr. Dyer Disagrees with Dr. Yang's Opinion That Transferring Process Technology from One Fab to Another Requires Matching Manufacturing Tools

Based on his training, experience, and review of the documents in this case, Dr. Dyer does not agree that differences in tooling between DRAM fabrication facilities (e.g., Project M and Micron) are an indication that Project M did not copy, misappropriate, transfer, or alter Micron's process technology and incorporate it into Project M. Instead, implementing common process technology with different tools is standard in the industry, and a practice Dr. Dyer has elsewhere observed in his career in the context of process-technology transfers from one fab to another. And as demonstrated by Dr. Dyer's Exhibit G (USEXPERT_DYER-00000010), the Micron Fab 15 (former Elpida fab E300) and Micron Fab 16 (former Rexchip Fab R1), do not use the exact same tooling even though the process technology developed at Fab 15 was transferred to Fab 16. As described in Dr. Dyer's opening disclosure, engineers like JT Ho had an apparent expertise in the engineering effort required to transfer technology from one fab to another and accounting for the different tools at different facilities. Based on Dr. Dyer's observations and calculations in Exhibit G, Rexchip used a different tool type or tool vendor for roughly 36% of the process steps. Dr. Dyer will testify that even the same fab can switch out different tools for the same process steps, as demonstrated by the Rexchip process flow documents referenced in his opening disclosure (i.e., TAIWANHD-00035041)].

Dr. Dyer also compared the tools utilized by Project M (as described in Project M documents dated 1/20/2016, TAIWANHD-02160179) to Micron's tool list (as described in TAIWANHD-00035041). Based on that comparison, Dr. Dyer will testify that about 79% of the steps had a tool from the same vendor and around 80% of the steps with the same vendor had a matching tool type from the vendor. Dr. Dyer's comparisons of Project M's tool list to Micron's tool list is in Exhibit H (USEXPERT_DYER-00000011).

III. The United States Has Not Waived Any Issues Regarding Patents Procured by Project M and Reverse Engineering

The United States disagrees that it has waived any issues for trial. Dr. Yang's Rule 16 disclosure incorrectly states that United States has waived the ability to elicit evidence regarding patents obtained by Project M that include Micron trade-secrets or materials identified in Trade

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Secrets 2 and 6, as further described in paragraphs 32 and 45 of the Indictment. That is incorrect. Rule 16 disclosures cover only expert testimony. To the extent the United States intends to elicit lay testimony or admit documentary evidence at trial tending to prove that Project M misappropriated Micron's trade secrets or other information in its patents, nothing about its Rule 16 disclosures forbids it from doing so. Moreover, the United States' opening disclosure for Dr. Dyer included a lengthy summary of his opinions regarding the difficulty of reverse engineering DRAM process information. The United States, therefore, has not waived its ability to elicit expert testimony regarding reverse engineering.